

ENG Committee – Work Plan 2018-2022														
Strategy Technical Domain	Task		Expected Output	WG	Session							Status		
					8	9	10	11	12	13	14			
1. Standard 1010 – AtoN planning and service requirements														
1.1. Obligations and regulatory compliance	1.1.1.													
1.2. AtoN Planning (offshore signals, bridge signals, traffic signals, MBS, fairway design)	1.2.1. Develop guidance on AtoN simulation technology. ARM or ENG?		New guideline											
	1.2.2. Develop Guidance on protection zones in light and daymark sectors and radar/ VTS systems to avoid obstructions due to structures, mooring ships, etc and competing lights (Joint ARM cooperation).		New guideline											
1.3. Levels of service objectives. (Availability and Categories)	1.3.1.													
1.4. Risk Management	1.4.1.													
1.5. Virtual marking	1.5.1.													
1.6. Quality management	1.6.1. Develop Guidance on checking that 3rd party AtoN providers are providing what they are obliged to provide– 3rd party AtoN provider quality control. (Joint ARM cooperation)		New guideline											
2. Standard 1020 – AtoN Design and delivery														
2.1. Visual signalling(vision, colour, conspicuity, rhythmic characters)	2.1.1. Update E-111 Port Traffic Signals		Revise Recommendation											
	2.1.2. Develop E-112 Leading Lights and 1023 Leading Lines into a Guideline		Revise Recommendation and guideline											
	2.1.3. Revise Guideline 1041 on sector lights		Delete - Last updated in 2016											
	2.1.4. Complete Guideline 1061 Illumination of structures		Revise Guideline, Last updated in 2008											

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	2.1.5. Update Guideline 1048 LED technologies and their use in signal lights	Revise Guideline											
	2.1.6. Review & update guideline 1043 on Light sources	Revise Guideline											
	2.1.7. Develop guideline for E-106 Retroreflective materials	New Guideline											
2.2. Design, Implementation & Maintenance	2.2.1. Develop E200-3 on measurement into a Guideline.	New Guideline											
	2.2.2. Develop new recommendation on marine light Terms of Measurement	New Recommendation											
	2.2.3. Develop E200-5 on Optical Performance into a Guideline.	New Guideline											
	2.2.4. Revise Guideline on effective intensity.	Revise Guideline											
	2.2.5. Develop Guidance on monitoring of function and degradation of AtoN light sources.	New Guideline											
	2.2.6. Develop Guidance on service factors.	New Guideline											
	2.2.7. Develop Guidance on Colour fading of AtoN (plastic and painted) – methods to measure and assess.	New Guideline											
	2.2.8. Joint ENG/ARM WORKSHOP – topic to be ascertained.	Workshop											
2.3. Design, Implementation & Maintenance	2.3.1. Develop guidance to identify appropriate standards for AtoN equipment with extreme environmental conditions. Humidity, temperature, enclosure ratings, UV etc) Also including peak intensity specification for LED AtoN, batteries, optic service factor, thermal cap, etc.	New Guideline											
	2.3.2. Complete guidance on Maintenance of AtoN structures.	New Guideline											

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	2.3.3. Develop Guideline on Tidal flow data capture and display.	New Guideline											
2.4. Power systems	2.4.1. Develop Guidance on what constitutes a good Marine AtoN solar panel.	New Guideline											
	2.4.2. Deliver a WORKSHOP - IALABATT/ IALALITE	Workshop											
	2.4.3. Monitor Battery development for use in AtoN	Knowledge within ENG											
2.5. Floating AtoN (buoys, moorings, stability, etc.)	2.5.1. Develop guidance on Buoy Stability testing procedure for use afloat. New guidance or develop existing.	New Guideline											
	2.5.2. Develop new or existing guidance on Radar reflection properties of plastic buoys	New Guideline											
	2.5.3. Complete guideline on floating AtoN	New Guideline											
2.6. Environment, Sustainability & Legacy	2.6.1. Develop Guidance on Modern equipment in traditional lighthouses. Merge from 1043 & 1048.	Revise New Guideline											
	2.6.2. Monitor Climate Change to inform IALA of impact and potential adaptation requirements for AtoN providers.	Report to Council New Guideline											
	2.6.3. Supervision of the Heritage Forum	Other											
3. Standard 1030 – Radionavigation services													
3.1. Satellite positioning and timing	3.1.1. Resilient PNT (identification, potential impact and mitigations)	New Recommendation and revised Guideline											
3.2. Terrestrial positioning and timing (including eLoran, eChayka, R-mode)	3.2.1. Terrestrial radionavigation systems	New Recommendation											
	3.2.2. R-Mode (MF)	New Guideline											
	3.2.3. R-Mode (AIS/VDES)	New Guideline											
	3.2.4. Product Specification support (eLoran etc)	Product Specification											

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3.3. Racon & radar positioning	3.3.1. eRacon (standard approach)	New Guideline											
3.4. Augmentation services (SBAS & DGNSS)	3.4.1. SBAS performance for maritime	New Guideline											
	3.4.2. Guidance for marine beacon service providers (maintenance, knowledge exchange, harmonisation)	New Guideline											
3.5. Document updates	3.5.1. Review and update current documentation under the perview of PNT WG	Revised Recommendations and Guidelines											
3.6. Liaison with related bodies	3.6.1. Update to ITU M.823, potential replacement for A.915, Liaison with RTCM, ITU etc	Liaison Notes											
3.7. PNT technology review	3.7.1. Input to MSP, Integrity considerations for resilient PNT, cybersecurity impact for PNT data, DATUM consierations	New Guidelines or Liaison as appropriate											
4. Standard 1050 Training and Certification													
4.1. Training and assessment	4.1.1. Development and review of WWA courses	New Model Courses											
4.2. Competency certification and revalidation	4.2.1.												
4.3. Simulation in training	4.3.1.												
4.4. Human factors	4.4.1.												
4.5. Capacity building	4.5.1. Navguide updates and review	Updated Manual											
5. Standard 1060 Digital communications technologies													
5.1. Harmonised maritime connectivity (Maritime Internet of Things, intelligent sensors, AtoN monitoring)	5.1.1. Review telemetry Guideline 1008.	Revised Guideline, Last updated 2009											
	5.1.2. Develop guidance on how to package monitoring information on AtoN status such that it can be fed into the MCP (Maritime Connectivity Platform) as an MSP	New Guideline, For ENAV? Not sure this expertise exists in ENG											
	5.1.3. Cyber security for AtoN operations. (Joint ENAV co operation).	New Guideline											

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	5.1.4. Deliver WORKSHOP on engineering support for e-navigation services, including hot/cold climates & radio propagation.	Workshop											
6. Other													
6.1. Heritage forum	6.1.1. Supervision of the Heritage Forum	Other											